

ENVIRONMENTAL ASSESSMENT WORKSHEET

Note to preparers: This form is available at www.mnplan.state.mn.us. **EAW Guidelines will be available in Spring 1999 at the web site.** The Environmental Assessment Worksheet provides information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit or its agents to determine whether an Environmental Impact Statement should be prepared. The project proposer must supply any reasonably accessible data for — but should not complete — the final worksheet. If a complete answer does not fit in the space allotted, attach additional sheets as necessary. The complete question as well as the answer must be included if the EAW is prepared electronically.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS. The notice will be published in the February 18, 2002 Monitor. **The comment period for this EAW ends at 4:30 p.m. on March 20, 2002.**

1. **Project title:** Island Station

2. **Proposer:** Prairie Gen L.P.

Contact person: John Jaffray
Title: President
Address: 80 South 8th Street, Suite 4040
City, state, ZIP: Minneapolis, MN 55402
Phone: 612-334-9643
Fax: 612-339-8240
E-mail: jjaffray@prairiegen.com

3. **RGU:** Environmental Quality Board

Contact person: John Hynes
Title: EQB Staff
Address: 658 Cedar Street
City, state, ZIP: St. Paul, MN 55155
Phone: 651-296-2871
Fax: 651-296-3698
E-mail: john.hynes@mnplan.state.mn.us

4. **Reason for EAW preparation** (check one)
☐ EIS scoping ☒ Mandatory EAW ☐ Citizen petition ☐ RGU discretion ☐ Proposer

If EAW or EIS is mandatory give EQB rule category subpart number 4410.4300 Subpart 3 **and subpart name** Electric Generating Facilities

5. **Project location County:** Ramsey

City/Township: St. Paul

NE ¼ **Section** 12 **Township** 28 North **Range** 23 West
SW ¼ **Section** 3

Attach each of the following to the EAW:

- County map showing the general location of the project;
- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable);
- Site plan showing all significant project and natural features.

6. **Description**

a. Provide a project summary of 50 words or less to be published in the *EQB Monitor*.

Prairie Gen L.P. proposes to construct a 49-megawatt electrical power generating station at 436 Shepard Road, St. Paul, MN. The site is presently zoned I-2 Industrial. (I-2 Industrial zoning includes the use for a power plant.) Island Station will consist of one natural gas, dual fuel, simple-cycle combustion turbine. The primary fuel is natural gas and the secondary fuel is fuel oil. The proposed project also includes a transmission line, natural gas connections and other associated facilities.

b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

Prairie Gen L.P. is proposing to construct an electrical power generating station ("Island Station", the "Project", the "Facility") in St. Paul, Minnesota. A county location map, site location map (7.5 minute U.S. Geological Survey quadrangle map), and an aerial photograph are included as Figures 1, 2 and 3. Prairie Gen L.P. will own and finance the station. Prairie Gen L.P. was formed in October 2001 to develop, finance, construct, own or lease, operate and maintain an electric generating plant in Ramsey County, Minnesota.

The ownership of Prairie Gen L.P. is 50% by Prairie Gen Corporation, a Minnesota corporation, and 50% by the limited partners comprised of four Minnesota individuals or trusts for individuals. Prairie Gen Corporation has two shareholders: John Jaffray and Edward Benson.

The station will consist of one ALSTOM GTX100 simple-cycle combustion turbine driving a synchronous generator. The ALSTOM GTX100 is equipped with dry, low emissions technology and will burn natural gas or distillate fuels. Ambient air is drawn into the compressor element of the combustion turbine through the inlet air filtration and silencing system. Inlet air filtration is accomplished with a pad-type filter. Fuel is fired in the combustion section causing hot gases to expand through the turbine section. The cold end of the combustion turbine shaft drives a generator connected to the turbine through a speed reduction gear unit. The generator produces electric power. The combustion turbine's gases exhaust into the atmosphere through a 50-foot stack.

The primary fuel for the proposed turbine will be natural gas and the secondary fuel will be fuel oil. The turbine is designed to produce an electrical output of 49 megawatts (MW) in the winter and summer.

ALSTOM will supply the "Power Island" consisting of a complete combustion turbine generator within an enclosure, a control building and other auxiliary equipment. Construction is anticipated to begin April 1, 2003 and be completed by June 1, 2003.

Connections will be made to Xcel Energy's Highbridge Substation and to the Xcel Gas's natural gas distribution system. An Interconnection Request was made to Xcel Energy on December 3, 2001 and Xcel Gas is presently reviewing the gas arrangements.

c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The addition of this turbine is proposed to meet a portion of the Mid-Continent Area Power Pool ("MAPP") forecast capacity deficits in years 2003 and beyond. The Project will help satisfy MAPP's peaking resource needs. The increased need for generating capacity in the MAPP region results from strong regional economic growth over the past decade. During that period, the region has met its increasing obligations through purchases of capacity and energy from others within and without the Pool. Excess capacity in MAPP has now largely been absorbed and continued purchases are increasingly difficult at competitive

prices. Prairie Gen L.P. has stated that the plant's output will be sold on a long-term power purchase contract to a MAPP utility.

- d. Are future stages of this development including development on any outlots planned or likely to happen?
☐ Yes ☒ No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

- e. Is this project a subsequent stage of an earlier project? ☐ Yes ☒ No

If yes, briefly describe the past development, timeline and any past environmental review.

7. **Project magnitude data**

Total project acreage 10.7 acres

Number of residential units: unattached N/A attached N/A maximum units per building N/A

Commercial, industrial or institutional building area (gross floor space): total square feet N/A

Indicate areas of specific uses (in square feet):

**Table 7-1
Specific Uses**

Use	Square Footage	Acres
Office	0	0
Manufacturing	0	0
Retail	0	0
Generating Facility	10,000	0.23
Fuel Oil Storage Facility	9,500	0.22
Roadway and Parking	22,000	0.51
Warehouse	0	0
Institutional	0	0
Light Industrial	0	0
Riverfront Parkland	283,140	6.50
Other Commercial (specify)	0	0
Building Height* (stack)	50 feet	N/A

*If over 2 stories, compare to heights of nearby buildings.

The new generator building will be a single story structure with a discharge stack with a height of approximately 50 feet. The former coal fired power plant building currently located at the Site consists of five stories and is approximately 100 feet tall with a discharge stack extending approximately 200 feet above the roof of the building. The developed portion of the site will require approximately four acres of land. The balance of available land will be left as riverfront and the former plant building will be left standing.

8. Permits and approvals required. List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure.

**Table 8-1
Required Permits, Approvals & Notices**

Federal Agency	Type of Application	Status
Federal Energy Regulatory Commission	Exempt Wholesale Generator Status	Applied For
EPA	Request for Certificate of Representation (Acid Rain Permit)	Applied for

Minnesota Agencies	Type of Application	Status
Minnesota Environmental Quality Board	EAW	Submitted Data Portion of EAW
MPCA	Oil and Chemical Storage Requirements	To be Applied For
	NPDES Stormwater Discharge Permit & Stormwater Pollution Prevention Plan	To be Applied For
	Spill Prevention, Control and Countermeasure Plan	To be Applied For
	Air Emission Facility Permit	Applied For
	NPDES Industrial Waste Water Discharge	To be Applied For
	Acid Rain Permit	To be Applied For
State Board of Electricity	Electrical Inspection	To be Applied For
Department of Health	Public Water Supply Plan Review	To be Applied For
	Plant Plumbing Plan Review	To be Applied For
Department of Natural Resources	Groundwater Appropriation Permit	To be Applied For if Needed
	Threatened and Endangered Species Review	Completed
State Historical Preservation Office	Cultural Resources Review	To Be Requested

St. Paul Agencies	Type of Application	Status
City of St. Paul	Construction Site Plan Review	To be Applied For
	Utility Plan Review	To be Applied For
	Drainage and Grading Plan Review	To be Applied For
	Wetland Conservation Act	To be Applied For
	Building Permit	To be Applied For by Contractor
	Drainage and Grading Plan Review	To be Applied For

Utility Services	Type of Application	Status
Xcel Energy Transmission	Transmission Service	In Process
Xcel Gas Natural Gas and Fuel Oil	Natural Gas Services	In Process

9. Land use. Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

The site is located in northeast quarter of section 12, Township 28 North and Range 23 West in Ramsey County, Minnesota. It is bordered on the north by Shepard Road, on the south by the Mississippi River, on the east by the Xcel Energy/Highbridge coal generating facility, and on the west by additional Xcel Energy property. The land is dominated by an abandoned coal-fired generating facility formerly operated by Xcel Energy. The existing generating facility (Figure 5a and 5b) has been abandoned for over 25 years. The site is

shown on the U.S. Geological Survey 7.5-minute quadrangle map in Figure 2 and on an aerial photograph in Figure 3.

The project area is currently industrial land with trees, bushes and gravel roads. See Figure 5c. The property is presently used for houseboat mooring on the river and coal storage within the abandoned generating facility. See Figure 5b. A Phase I Environmental Assessment was conducted in accordance with the procedures in ASTM E 1527-00 “Standard Practice for Environmental Site Assessments”. No potential environmental hazards due to past site uses, such as soil contamination, abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines are known to exist on the site. See Appendix A, Phase I Environmental Assessment.

The proposed 115kV transmission line will connect the site with Xcel Energy's Highbridge substation located approximately 3,000 feet to the east of the site. See Figure 3. The existing land uses along this route are for transmission lines and industrial land.

A connection to the Xcel Gas distribution system will be made to an existing natural gas pipeline on the Island Station site. See Figure 3. The Xcel Gas system operates at 100 p.s.i., and the connection is expected to be approximately 100 feet long.

The property is zoned I-2 industrial.

10. Cover types. Estimate the acreage of the site with each of the following cover types before and after development:

**Table 10-1
Cover Types**

Cover Type	Before (Acres)	After (acres)
Types 1-8 wetlands		
Wooded/forest		
Brush/Grassland	2.6	2.6
Cropland		
Lawn/landscaping	1.0	1.0
Impervious surfaces	0.6	1.0
Riverfront Parkland	6.5	6.1
TOTAL	10.7	10.7

If Before and After totals are not equal, explain why.

11. Fish, wildlife and ecologically sensitive resources

a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

The developed portion of the site is located at the back third of the property. See Figure 5c. The land bordering the river is expected to be converted into green space in conjunction with the City of St. Paul. See Figure 5d. There are no known significant fish, wildlife, and ecologically sensitive resources on the site.

Combustion Turbine and Associated Facilities. A former coal plant is located on the site and occupies approximately 1 acre. The plant is abandoned and unoccupied. This area does not support any vegetation or provide habitat for wildlife. The combustion turbine, auxiliary equipment, buildings, and interior roads and parking will be located adjacent to the old plant and will occupy approximately four acres. The existing plant building will be left intact.

Transmission Line. A transmission line approximately one-half mile in length will connect the generation facility to the existing Highbridge substation operated by Xcel Energy located east of the site. The transmission line will require the installation of a number of poles. Permits will be required and Xcel Energy will file for these approvals.

Fuel Oil Storage Facility. There will be two above-ground fuel oil storage tanks with a total capacity of approximately 75,000 gallons. The tanks will be surrounded by a containment berm designed with a capacity of 110% of the total volume (110% X 75,000 gallons) of the tanks and the berm will need to be lined. No underground storage tanks will be located at the site. An emergency response plan in conformance with SPCC requirement of the Clean Water Act (CWA) and the Minnesota Spill Bill, Minnesota Statute 115E.045 subd. 2., will be developed and maintained on site.

b. Are any state-listed (endangered, threatened or special concern) species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities on or near the site? X Yes ___ No

If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources has been conducted and describe the results. If the DNR Natural Heritage and Nongame Research program has been contacted give the correspondence reference number. Describe measures to minimize or avoid adverse impacts.

The MN-DNR Natural Heritage Program has reviewed the project area (NHNRP Contact # ERDB 20020470) within a 1-mile radius for known occurrences of federal- and state-listed threatened and endangered species and other significant natural features. A response letter from the MN-DNR Natural Heritage Program dated December 5, 2001, is included in Appendix B. The species listed in Table 11-1 were identified as occurring within a one-mile radius of the project based on the results of the MN-DNR review.

**Table 11-1
Listed Species Potentially Occurring Within the Vicinity of the Project**

Common Name	Scientific Name	State Status
Milk Snake	Lampropeltis	No Legal Status
Bat Concentration #28	n/a	none
Dry Prairie Sand Gravel	n/a	not applicable
Peregrine Falcon	Falco Peregrinus	Threatened
Northern Myotis	Myotis Septentrionalis	Special Concern
Ordovician	Fossil Invertebrate	not applicable
Blanding's Turtle	Emydoidea BlandinII	Threatened

The Minnesota DNR Natural Heritage Program has concluded that based on the nature and location of the proposed project, it does not believe the project will affect any known occurrences of rare natural features.

12. Physical impacts on water resources. Will the project involve the physical or hydrologic alteration — dredging, filling, stream diversion, outfall structure, diking, and impoundment — of any surface waters such as a lake, pond, wetland, stream or drainage ditch? __ Yes X No

If yes, identify water resource affected and give the DNR Protected Waters Inventory number(s) if the water resources affected are on the Protected Waters Inventory. Describe alternatives considered and proposed mitigation measures to minimize impacts.

13. Water use. Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)? X Yes __ No

If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

No appropriation of ground or surface water will be required for the project. An existing water supply well (Minnesota Department of Health Unique No. 00247165) will be properly abandoned in accordance with Minnesota Department of Health Requirements in conjunction with Prairie Gen's purchase of the property. The Project will obtain water from the City water supply via connection with the existing City water system.

Approximately 100 gallons of water is required for each turbine wash cycle. Turbine washing may be done as frequently as once per week when the unit is operating. Assuming that the turbine is operated year round, there will be 52 wash cycles per year with a total water use of approximately 5,200 gallons.

The only other water use at the site is domestic water use and water for fire protection. Prairie Gen anticipates that one full time person for 8 months per year and additional personnel on a part time basis, as needed, will occupy the site. Conservatively, based on two people employed at the site using 20 gallons per shift (Standard Handbook of Environmental Engineering), 5 days a week, 50 weeks per year this would result in approximately 10,000 gallons of water used per year.

14. Water-related land use management district. Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district?

X Yes __ No

If yes, identify the district and discuss project compatibility with district land use restrictions.

The Facility is located on the Mississippi River and is within the St. Paul Mississippi River Corridor Plan (MRCP) area. (See Figures 1, 2, 3 and Appendix C.) Part of the property is within a 100 year floodplain. None of the developed portion of the site is in the floodplain. Compatibility with the Corridor Plan is achieved by scaling the project to the surrounding topography (see Figure 6), and through changing the property ownership (to Prairie Gen L.P.), which organization is interested in achieving the goals set out in the MRCP.

15. Water surface use. Will the project change the number or type of watercraft on any water body? __ Yes X No

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

16. Erosion and sedimentation. Give the acreage to be graded or excavated and the cubic yards of soil to be moved:

acres 4 acres; cubic yards 15,000.

Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

No highly erodible soils or steep slopes are located within the project area.

A temporary erosion and sedimentation control plan will be developed as part of the NPDES Stormwater Discharge Permit and Stormwater Pollution Prevention Plan. The plan will include best management practices (BMPs) to prevent sediment from leaving the site and entering the Mississippi River. BMPs that will be used during construction may include:

- installation of silt fences at construction perimeters, installed before excavation and grading and maintained until stabilization of soils is achieved;
- stockpile areas established with erosion control measures;
- areas not planned to be paved or built on will be mulched and planted in a timely manner to reduce erosion and seeding mortality; and
- outfalls of culverts and storm water holding ponds equipped with riprap to dissipate energy and control erosion.

17. Water quality: surface water runoff

a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any stormwater pollution prevention plans.

Areas of the site that are not occupied by structures or roadway will be landscaped, or returned to their native state, in accordance with the Mississippi River Corridor Plan. The combustion turbine, auxiliary equipment, buildings, and interior roads and parking will be located at the northern side of the property and will occupy approximately four acres. Grading of the site will eliminate current erosion and sediment migration to the river and will improve the quality of stormwater runoff from this area. The quantity and quality of runoff before and after development is further discussed in Item 17b.

b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate the impact of runoff on the quality of receiving waters.

Currently, runoff from the existing site drains either (a) directly to the Mississippi River, which is located northeast and south of the site, (b) to a wooded area west of the site, or (c) to an on-site depression located northwest of the former power plant building.

During construction, soils in the vicinity of the developed portion of the site will be graded to promote infiltration and to minimize direct runoff into the Mississippi River. Using ditches and swales, runoff from on-site parking areas will be directed to the wooded area west of the site and the on-site depression. These areas will provide detention during storm events.

A temporary erosion and sedimentation control plan will be developed as part of the NPDES Stormwater Discharge Permit and Stormwater Pollution Prevention Plan. Drainage and stormwater design will proceed in consultation with the City of St. Paul and the Lower Mississippi River Watershed District. All stormwater discharges will be in conformance with Minnesota Rules Chapter 7050, which establishes standards of quality and purity for waters of the state. It is not anticipated that runoff from the proposed project will significantly increase over that existing at this time.

18. Water quality: wastewaters

a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

Approximately 5,200 gallons of used wash water from turbine washing will be generated annually if the turbine is operated year round and is washed at the rate of one wash per week. The purpose of washing the turbine is to remove any particulates accumulated on the turbine blades. Used wash water will be drained into a holding tank with a capacity of 1,000 gallons or less. The tank will be pumped out approximately twice a year, and the wash water will be trucked to a permitted disposal facility off site.

The only other source of wastewater would be typical domestic wastewater generated by one to two employees. The amount of domestic wastewater generated is approximately 10,000 gallons per year and will be discharged to St. Paul's sanitary sewer.

b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

A Spill Prevention, Control and Countermeasure Plan (SPCC), which will describe the handling of contaminated water will be developed and submitted to the MPCA. Spill containment is provided for the fuel storage area and the transformer vaults. The transformer vaults, floor drains within the turbine enclosure and the fuel unloading area will have oil/water separators, which will discharge the water to the sanitary sewer. Any oil will be cleaned from the oil/water separator and disposed of separately as defined in the SPCC. The secondary containment for the fuel storage will be checked periodically, and if the storm water is clean, it will be manually discharged to the sanitary sewer. However, most of the stormwater will be evaporated before discharging to the sanitary sewer. If the storm water is contaminated, it will be disposed of as described in the SPCC.

The following is a breakdown of the amount of water discharged to the sanitary sewer from each component:

- Generating Station: Approximately 6 gallons per day
- Balance of Plant Building: 70 gallons per day

The total discharge, exclusive of turbine washing, is expected to be 76 gallons per day or 28,000 gallons per year.

c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

Wastewater generated on the site will be discharged to St. Paul's sanitary sewer and then treated by the Pig's Eye Plant located in St. Paul. No pretreatment provisions are anticipated. The Pig's Eye Plant currently treats in excess of 500 million gallons per day, and has the capacity to handle the volume and composition of wastes generated by Island Station.

d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements necessary. Describe any required setbacks for land disposal systems.

Not applicable.

19. Geologic hazards and soil conditions

a. Approximate depth (in feet)

to ground water: 0 minimum 15 average

to bedrock: Approximately 90 feet

Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

None of the geologic hazards listed above exist at the Site.

b. Describe the soils on the site, giving NRCS (SCS) classifications, if known. Discuss soil granularity and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

Geomatrix Inc. performed a Phase I Environmental Analysis (Appendix A). This analysis indicates that native site soils consist of sand and gravelly sand deposited by the Mississippi River with areas of fine sediment and organic material. A significant amount of fill has been placed on the Site since its initial development in the 1920's. Up to 20 feet of fill has been placed at the planned location of the generator building. The origin of the fill is unknown, but the fill reportedly contains concrete, rubble, and miscellaneous soils including sands and clays. The potential for groundwater contamination due to waste handling on the site is low, because the area surrounding the generator building will be paved and the only chemicals that will be handled at the site is fuel oil. The fuel oil will be stored in above-ground tanks within a secondary containment system (see Item No. 20).

20. Solid wastes, hazardous wastes, storage tanks

a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

During construction, solid waste produced will be disposed off-site. The contractor will be responsible for solid waste disposal. The solid waste will include normal construction debris such as, scrap wood, plastics, sheetrock, packing material, cardboard, scrap metals and electrical wire. Recycling of waste materials will be

No hazardous waste will be generated during operation.

Fuel oil will be present at the site and stored in above-ground storage tanks. The tanks will have a secondary containment system constructed in accordance with Minnesota Rules Chapter 7151 and the Minnesota Uniform Fire Code. If water within the secondary containment system is contaminated, it will be disposed as described in a Spill Prevention, Control and Countermeasure Plan (SPCC) that will be prepared for the Site.

There will be two above-ground fuel oil storage tanks with a total capacity of approximately 75,000 gallons. The tanks will be surrounded by a containment berm designed with a capacity of 110% of the total volume (110% X 75,000 gallons) of the tanks and the berm will need to be lined. No underground storage tanks will be located at the site. An emergency response plan in conformance with SPCC requirement of the Clean Water Act and the Minnesota Spill Bill, Minnesota Statute 115E.045 subd. 2., will be developed and maintained on site.

Estimated total average daily traffic generated:

During Operation: Less than 5 vehicles

During Operation:	Unknown
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The project is located on Shepard Road. Impact on traffic congestion is not anticipated during operation since there will be approximately 5 vehicles or less per day traveling to the site. There may be a slight impact on traffic congestion during construction.

- 22. Vehicle-related air emissions.** Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: If the project involves 500 or more parking spaces, consult *EAW Guidelines* about whether a detailed air quality analysis is needed.

No significant air quality impacts are anticipated from vehicle-related air emissions.

- 23. Stationary source air emissions.** Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing) and any greenhouse gases (such as carbon dioxide, methane, nitrous oxide) and ozone-depleting chemicals (chloro-fluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

The project is considered a synthetic minor source of emissions under the federal New Source Review (NSR) Prevention of Significant Deterioration (PSD) program (40 CFR 52.21) and a major source under the federal Title V Operating Permits program (40 CFR 70). A complete air emission permit application detailing all proposed facility operations was submitted to the Minnesota Pollution Control Agency (MPCA) on December 3, 2001.

The simple cycle combustion turbine will make use of an advanced Dry Low NO_x emissions technology to control nitrogen oxide (NO_x) and carbon monoxide (CO) emissions through better fuel/combustion air mixing and good combustion practices. Because the emission control technology functions through fuel mixing in the combustion chamber and controlling combustion residence time, emissions reductions are experienced when combusting both liquid and gaseous fuels. The emission control technology will effectively keep emissions within the range of synthetic minor permitting status. No additional pollution control equipment is required for the proposed facility. The Dry Low NO_x emission control technology for the proposed combustion turbine is comparable to emission controls required for major sources under PSD. Other than the combustion turbine, no additional fuel combustion sources will be proposed for the electrical generating station. All ancillary heating and cooling needs will be attained through electrically operated equipment.

The December 3, 2001 air emission permit application that was submitted to the MPCA for the proposed station details the anticipated potential emissions. The table below summarizes the potential emissions in units of tons per year for criteria and hazardous air pollutants emitted from the proposed facility.

Table 23-1
Potential Emissions in TPY

NO_x	CO	PM/PM10	VOC	SO₂	HAPs
236.47	132.80	13.66	4.17	10.07	4.50

Evaluation of facility compliance with respect to state and national ambient air quality standards (NAAQS) as well as federal PSD Class II allowable increments, is not specifically required for minor sources with respect to NSR PSD rules. However, as a major source with respect to Title V permitting rules, the proposed

facility will be required to demonstrate compliance with the NAAQS during the 5-year term of the air emissions permit.

It is anticipated that the proposed facility will have negligible impacts with respect to the ambient air quality standards. Similar combustion turbine sources have demonstrated excellent dispersion characteristics with high exhaust temperatures and high exhaust exit velocities. These factors are conducive to good dispersion characteristics for exhaust gases, thus leading to very low impacts to local air quality. Ramsey County, Minnesota is a moderate non-attainment area for PM₁₀ and an attainment area for all other criteria pollutants. The PM₁₀ non-attainment area for Ramsey county consists of a portion of land bounded on the West by the Mississippi River from Lafayette Road to Interstate 494, on the South by Interstate 494, on the East by Highway 61, and on the North by Interstate 94. The proposed facility is not located in the non-attainment area of Ramsey County.

A detailed Air Emissions Risk Analysis (AERA) was not required for the proposed facility as part of the EAW because the primary fuel proposed for combustion is natural gas. The MPCA has determined, through policy, that boilers and turbines fired primarily by natural gas need not complete a detailed AERA report. However, anticipated potential hazardous air pollutant (HAP) emissions were quantified in the air emission permit application submitted to the MPCA. As indicated in the above table, the total of all HAP emissions will be well below the major source thresholds of 10 tons per year for individual HAPs and 25 tons per year for the aggregate of all HAPs.

24. Odors, noise, and dust. Will the project generate odors, noise or dust during construction or during operation?
X Yes No

If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

Dust

Construction of the facility is expected to generate dust. However, it is not anticipated that fugitive dust will be generated in objectionable quantities. No dust will be generated during operations.

Odors

The project will not generate significant odors during construction or operation.

Construction Noise

During construction of the peaking facility, it is anticipated that noise levels will increase in the immediate area surrounding the facility. The actual noise levels on and adjacent to the site will vary considerably depending on the number of pieces of equipment being operated simultaneously and the utilization factor.

The City's building inspector may impose limited hours on construction activity during the construction phase of the project.

Existing and Operational Noise

The Facility will be designed to operate both within the State of Minnesota Noise Standards, Minnesota Rules Part 7030.0040, and the City of St Paul Legislative Code, Chapter 293. The noise area classifications (NAC) of the state standards are determined by the land use activity of the receiver. Land use activities are generally divided into four NACs; 1) residential, 2) commercial, 3) industrial and agricultural, and 4) unclassified (undeveloped and unused land and water areas). The Facility and adjacent industrial facilities would be characterized as NAC 3 and NAC 4. The most sensitive receptor would be a NAC 1.

On Tuesday, January 8, 2001, Environmental Resource Group (ERG) conducted noise monitoring at the proposed facility to measure existing noise levels. Monitoring was completed at three locations using a *Metrosonics db-3100* Sound Level Meter (SLM). Measurements were recorded to determine existing noise levels at the nearest noise source and to measure existing background noise levels at the nearest noise receptors.

In relation to the proposed facility, the nearest existing noise source was determined to be the intersection of Randolph Avenue and Shepard Road, approximately 950 feet to the west as measured by Receptor 1. The nearest NAC I noise receptor was determined to be a townhouse development located along Palace Avenue, approximately 970 feet to the northwest (Receptor 2). The nearest NAC III receptor is Ashland Chemical Company approximately 350 feet to the north (Receptor 3). Noise monitoring locations are depicted on Figure 4. Before commencing the monitoring at each location, the SLM was positioned on a tripod four feet above grade and was calibrated to 102.0 decibels (dB).

At the intersection of Randolph Avenue and Shepard Road, the SLM was located on the west side of Shepard Road and South of Randolph Avenue, approximately 30 feet off center. For readings taken at the townhouse development, the SLM was positioned on a sidewalk 15 feet from the roadway and approximately 40 feet from the corner house. Both of these sites were estimated to be 50 feet higher in elevation in relation to the proposed facility. The third monitoring location was 20 feet off the roadway at the property boundary of Ashland Chemical Company. The results of the noise monitoring are summarized in Table 24-1 below.

Meteorological conditions for the monitoring period consisted of temperatures near 45 degrees F, with clear skies and a slight breeze. Background noise in the area was dominated by traffic from Shepard Road.

Table 24-1
Daytime Monitoring Results

Monitoring Event/Time	Location*	Monitored Results		Minnesota Daytime Standards	
		L ₁₀ (dBA)	L ₅₀ (dBA)	L ₁₀ (dBA)	L ₅₀ (dBA)
Receptor 1, Source (1143-1214)	Intersection of Randolph Ave. and Shepard Road 950' West of the proposed facility location	72	63	65	60
Receptor 2, NAC 1 (1234-1306)	Palace Ave. Townhouse Nearest residential receptor 970' Northwest of the proposed facility location	60	57	65	60
Receptor 3, NAC 3 (1321-1351)	Ashland Chemical Nearest receptor 350' North of the proposed facility location	60	56	80	75

*Receptor distances were determined using GPS data.

Table 24-1 shows that the existing background noise levels at the Receptor 2 and Receptor 3 monitoring locations comply with Minnesota standards for the NAC 1 and NAC 3 respectively. The primary source of background noise is attributed to traffic along Shepard Road (see Receptor 1).

The turbine vendor has provided noise emissions data for the GTX100 turbine. Table 24-2 presents sound emissions at 1,000 feet at ground level – mechanical sound radiated from the turbine, gears, and generator. This information was provided in octave band center format, and all subsequent calculations were performed on individual octave band centers.

Table 24-2
Sample Calculation of Sound Pressure Level at 1,000 Feet

	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1,000 Hz	2,000 Hz	4,000 Hz	8,000 Hz	Overall SPL (dBA)
GTX100 at 50 feet	84	83	77	70	59	53	54	57	58	
Overall SPL (dBA)	25	37	41	41	35	32	32	25	-6	46

This shows that the proposed facility would produce a noise level of 46 dBA at a distance of 1000 feet, the approximate distance to the nearest NAC 1 receptor, which is also estimated to be 50 feet higher in elevation compared to the proposed facility. Combining this information with the decibel readings from the townhouse development, the proposed facility was predicted to have no effect on background daytime noise levels. Nighttime noise monitoring was not undertaken. It is assumed that background noise readings will be similar during nighttime hours, depending on traffic in the area.

The Table 24-3 presents the measured daytime sound levels, predicted noise from the project, and the Minnesota Noise Standards.

Table 24-3
Modeling Results Compared with MPCA Daytime/Nighttime Noise Standards

Receptor/Source	Time	Background		Estimated Noise From Plant (dBA)	MN Noise Standards for NAC-1	
		Measured Sound Level				
		L50	L10		L50	L10
Receptor 1, Source	Day	63	72	46	60	65
	Night	n/m	n/m	46	50	55
Receptor 2, NAC 1	Day	57	60	46	60	65
	Night	n/m	n/m	46	50	55
Receptor 3, NAC 3	Day	56	60	46	60	65
	Night	n/m	n/m	46	50	55

n/m: Nighttime background sound levels not measured.

The proposers have stated that the noise generated from operation of the Facility will comply with applicable Minnesota and St. Paul Noise Rules. Because of the design of the Project, other noise sources in proximity to

the Facility, and the distance to sensitive noise receptors, it is anticipated that any noise impacts due to Facility operations will not be significant.

25. Nearby resources. Are any of the following resources on or in proximity to the site?

Archaeological, historical or architectural resources? ☐ Yes ☒ No

Prime or unique farmlands or land within an agricultural preserve? ☐ Yes ☒ No

Designated parks, recreation areas or trails? ☒ Yes ☐ No

Scenic views and vistas? ☐ Yes ☒ No

Other unique resources? ☐ Yes ☒ No

If yes, describe the resource and identify any project-related impacts on the resource. Describe any measures to minimize or avoid adverse impacts.

The site is located on the Mississippi River and is in an area included in the St. Paul Mississippi River Corridor Plan (MRCP). Industrial uses of land are included in the Plan. The project is expected to be consistent with the objectives of the MRCP, specifically MRCP Strategies 1, 2 and 4. See Appendix C.

26. Visual impacts. Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks? ☒ Yes ☐ No

If yes, explain.

The Facility is expected to have a stack height of 50 feet tall, which is lower than the height of the adjacent, brick building (100 feet), and substantially below the height of the present stack (300 feet). See Figure 5. The nearest residence is 1,000 feet from the facility. The Facility will be similar to the Minnesota River Station in Chaska, Minnesota as shown in Figure 6.

Due to low opacity, a plume or vapor clouds should not be visible from the exhaust stack during normal operations when combusting natural gas fuel. Operations during cold and damp weather, or during periods of distillate oil combustion, could have a chance of producing a visible water vapor or combustion related plume from the plant. Minnesota Rules 7011.2350, Standards of Performance for New Stationary Gas Turbines does not contain an opacity standard for new stationary combustion turbines.

The fuel oil storage facility is expected to have minimal visual impact on the area as it will be located at or below height of the stack and the surrounding tree line. See Figure 6.

The 115 kV line connecting the Facility to the Highbridge substation will, where possible, follow existing transmission lines within existing transmission easements. A permit from either the Minnesota Environmental Quality Board or the City of St. Paul is required.

Security lighting will be used at night to ensure safety on the grounds. Lighting impacts will be similar to the impacts from yard and street-lights as well as from the lighted silos at the Minnesota Ethanol Facility north of the proposed project area.

27. Compatibility with plans and land use regulations. Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency?

☒ Yes ☐ No. If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

The proposed project is subject to regulations set forth by the City of St. Paul's Zoning Ordinance and Floodplain Ordinance as described in Item 9 of this EAW. In addition, the project is located within an area that comprises the St. Paul Mississippi River Corridor Plan (MRCP). The project is expected to be compatible with the objectives of the MRCP, specifically Strategies 1,2 and 4. See Appendix C.

28. Impact on infrastructure and public services. Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project? X Yes ___No. If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see *EAW Guidelines* for details.)

Access Road

A preexisting access road connects the site to Shepard Road. The access road is shown on Figure 3.

Electricity

Approximately one-half mile of 115 kV transmission line will connect to the Xcel Energy's existing Highbridge Substation east of the site. The proposed route will run northeast approximately 3,000 feet. Xcel Energy will seek approval for the transmission line from either the City of St. Paul or from the MEQB. Xcel Energy is expected to build and own the connection facilities.

Natural Gas

Xcel Gas is expected to provide service to Island Station, and own the interconnection facilities up to the gas meter within the Facility. Some increase in pressure will be required, which will be effected by the compressors at the Island Station on the site. The proposed link to Xcel Gas is shown on Figure 3.

Miscellaneous Connections

A connection will be made to the city water main, city sewer main and to the local phone line operated by Qwest.

Public Services

Increased fire and police protection for the project is not anticipated. Since there is no residential land use proposed as part of the project, no requirement for services from the local school system will result.

29. Cumulative impacts. Minnesota Rule part 4410.1700, subpart 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative impacts. Describe the nature of the cumulative impacts and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to cumulative impacts (or discuss each cumulative impact under appropriate item(s) elsewhere on this form).

There are no past, present or reasonably foreseeable future projects that may interact with the project in such a way as to cause cumulative impacts.

30. Other potential environmental impacts. If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.

There are no other known adverse environmental impacts of the project.

31. Summary of issues. *Do not complete this section if the EAW is being done for EIS scoping; instead, address relevant issues in the draft Scoping Decision document, which must accompany the EAW. List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.*

Land Use. The project site is zoned industrial for a power plant. No potential conflicts involving environmental matters are known to exist.

Fish, Wildlife, and Ecologically Sensitive Resources. The development of the site and the operation of the combustion turbine and associated facilities are not anticipated to result in significant negative impacts to fish, wildlife, and ecologically sensitive resources.

Threatened and Endangered Species. The MN-DNR Natural Heritage Program has concluded that it does not believe the project will affect any known occurrences of rare natural features.

Water Resources. No adverse impacts to water resources including wetlands are anticipated.

Water Use. Approximately 100 gallons of water is required for each turbine wash cycle. Turbine washing may be done as frequently as once per week when the unit is operating. If the turbine is operated year round, there would be 52 wash cycles per year with a total water use of approximately 5,200 gallons of water.

Water-related Land Use Management District. The Project will not impact any water-related land use management district.

Erosion and Sedimentation. No highly erodible soils or steep slopes are located within the project area. A temporary erosion and sedimentation control plan will be developed as part of the NPDES Storm Water Discharge Permit and Storm Water Pollution Prevention Plan. The plan will include best management practices (BMPs) to prevent sediment from leaving the site and entering storm water conveyances to the Mississippi River.

Water Quality. A Spill Prevention, Control and Countermeasure Plan (SPCC), which will describe the handling of contaminated water will be developed and submitted to the MPCA. Used turbine wash water is contained in a holding tank prior to trucking to a permitted disposal facility off site. Spill containment is provided for the fuel storage area and the transformer vaults. The transformer vaults, floor drains within the turbine enclosure and the fuel unloading area will have oil/water separators, which will discharge the water to the sanitary sewer. Any oil will be cleaned from the oil/water separator and disposed of separately as defined in the SPCC. The secondary containment for the fuel storage will be checked periodically, and if the storm water is clean, it will be manually discharged to the sanitary sewer. However, most of the stormwater will be evaporated before discharging to the sanitary sewer. If the storm water is contaminated, it will be disposed of as described in the SPCC. The site will be graded to promote infiltration and to minimize direct runoff into the Mississippi River.

Geologic Hazards. There is no evidence of sinkholes or limestone formations within the project area.

Solid Wastes, Hazardous Wastes, and Storage Tanks. All solid wastes produced during construction will be disposed of off-site by the construction contractor. Any solid or hazardous wastes generated on site during facility operation will be disposed at a permitted facility. Two storage tanks with a total capacity of 75,000 gallons will be on-site and will be surrounded by a lined berm designed with a capacity of 110% of the total capacity of the tanks.

Traffic. Impact on traffic congestion is not anticipated during operation since there will be approximately 5 vehicles or less per day traveling to the site. There may be a slight impact on traffic congestion during construction, however, Shepard Road is a major road and is well traveled.

Air Emissions. The project is considered a synthetic minor source of emissions under the federal New Source Review (NSR) Prevention of Significant Deterioration (PSD) program (40 CFR 52.21) and a major source under the federal Title V Operating Permits program (40 CFR 70). A complete air emission permit application detailing all proposed facility operations was submitted to the Minnesota Pollution Control Agency (MPCA) on 12/03/01. It is anticipated that the proposed facility will have negligible impacts with respect to the ambient air quality standards. Similar combustion turbine sources have demonstrated excellent dispersion characteristics with high exhaust temperatures and high exhaust exit velocities.

Odors, Noise and Dust. Noise levels will increase in the immediate surrounding area during construction of the Facility. Existing background noise levels are in excess of the predicted noise levels of the Facility while in operation. The proposers have stated that the noise generated from operation of the Facility will comply with applicable Minnesota and St. Paul Noise Rules. Because of the design of the Project, other noise sources in proximity to the Facility, and the distance to sensitive noise receptors, it is anticipated that any noise impacts due to Facility operations will not be significant.

The Project will not generate significant odors during construction or operation.

It is not anticipated that fugitive dust will be generated in significant quantities.

Archeological, Historical, or Architectural Resources. No properties eligible for or listed on the National Register of Historic Places will be affected by this project.

Designated Parks, Recreation Areas, or Trails. The project site is located within the area comprising the St. Paul Mississippi River Corridor Plan (MRCP). The project is expected to be compatible and beneficial to the objectives and strategies in the MRCP.

Scenic Views and Vistas. The Proposed project will not impact any scenic views or vistas.

Visual Impacts. The facility will be seen from Shepard Road. The stack height is approximately 50 feet, which is lower than the stack and roof of the adjacent former generating station. The visibility of the facility will be lessened due to its siting below Shepard Road in a small depression. Due to low opacity, a plume or

vapor clouds should not be visible from the exhaust stack during normal operations when combusting natural gas fuel. Operations during cold and damp weather, or during periods of distillate oil combustion, may produce a visible water vapor or combustion-related plume from the plant. Minnesota Rules 7011.2350, Standards of Performance for New Stationary Gas Turbines does not contain an opacity standard for new stationary combustion turbines. Security lighting used will be similar to that of yard lights.

Compatibility with Plans. The proposed project is zoned by the city of St. Paul, and is compatible with the objectives of the city as promulgated in the MRCP. No conflicts are anticipated. Compatibility with these plans is further discussed in Item 9.

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9b and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

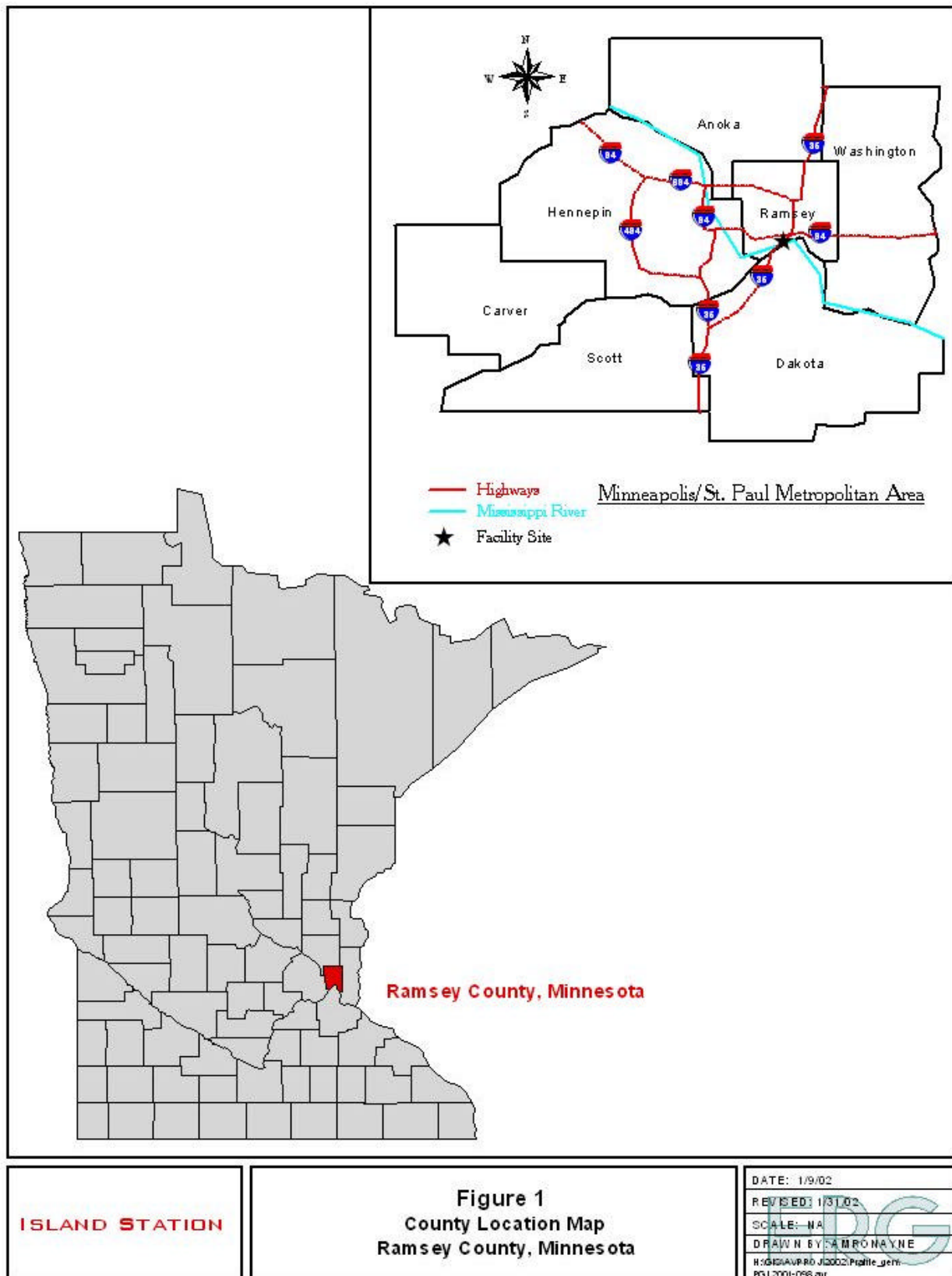
Signature

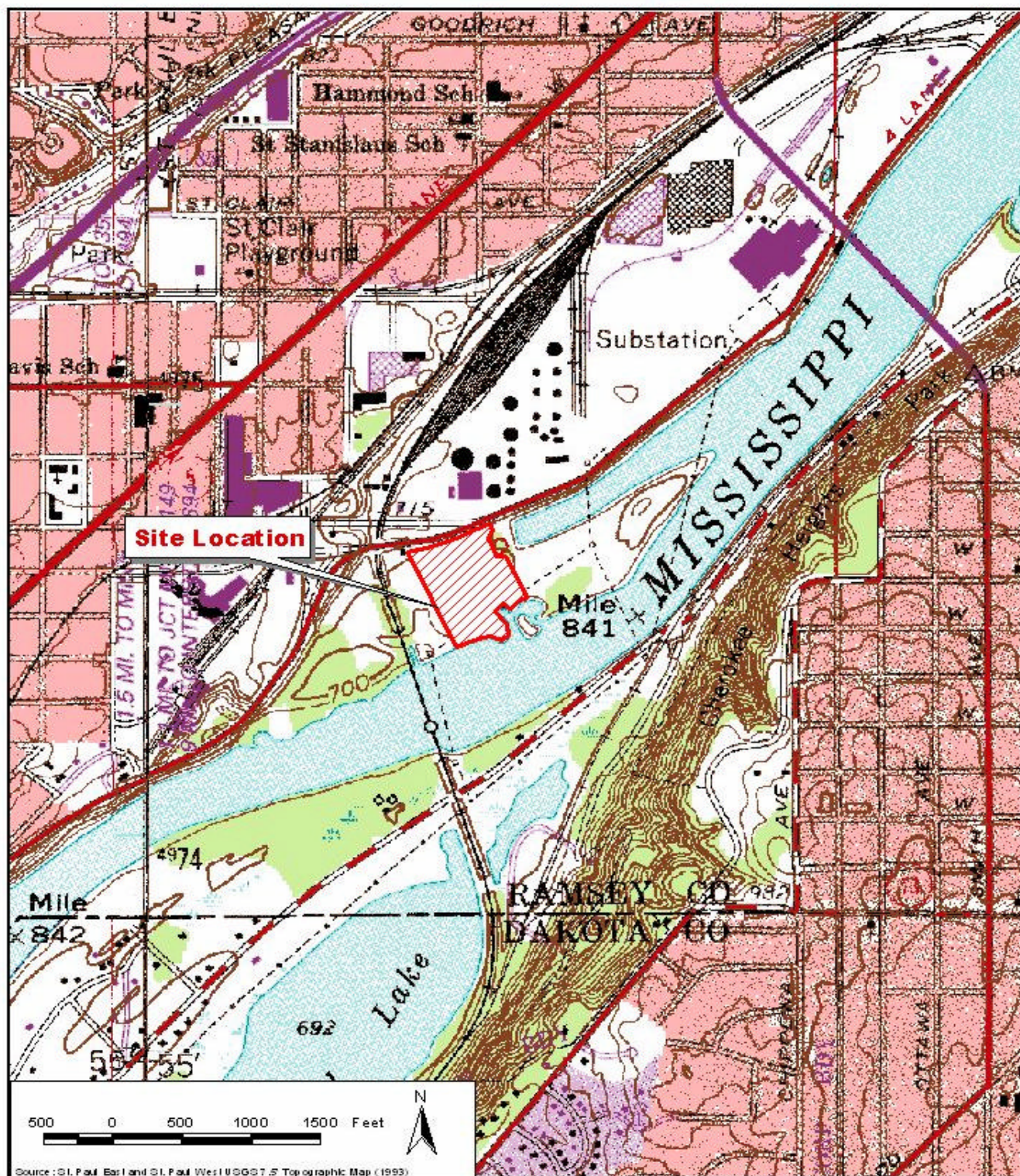
Date: February 11, 2002

Name: John P. Hynes

Title: EQB Staff

Environmental Assessment Worksheet was prepared by the staff of the Environmental Quality Board at Minnesota Planning. For additional information, worksheets or for *EAW Guidelines*, contact: Environmental Quality Board, 658 Cedar St., St. Paul, MN 55155, 651-296-8253, or www.mnplan.state.mn.us.





ISLAND STATION

Figure 2
Site Location Map
St. Paul, Minnesota

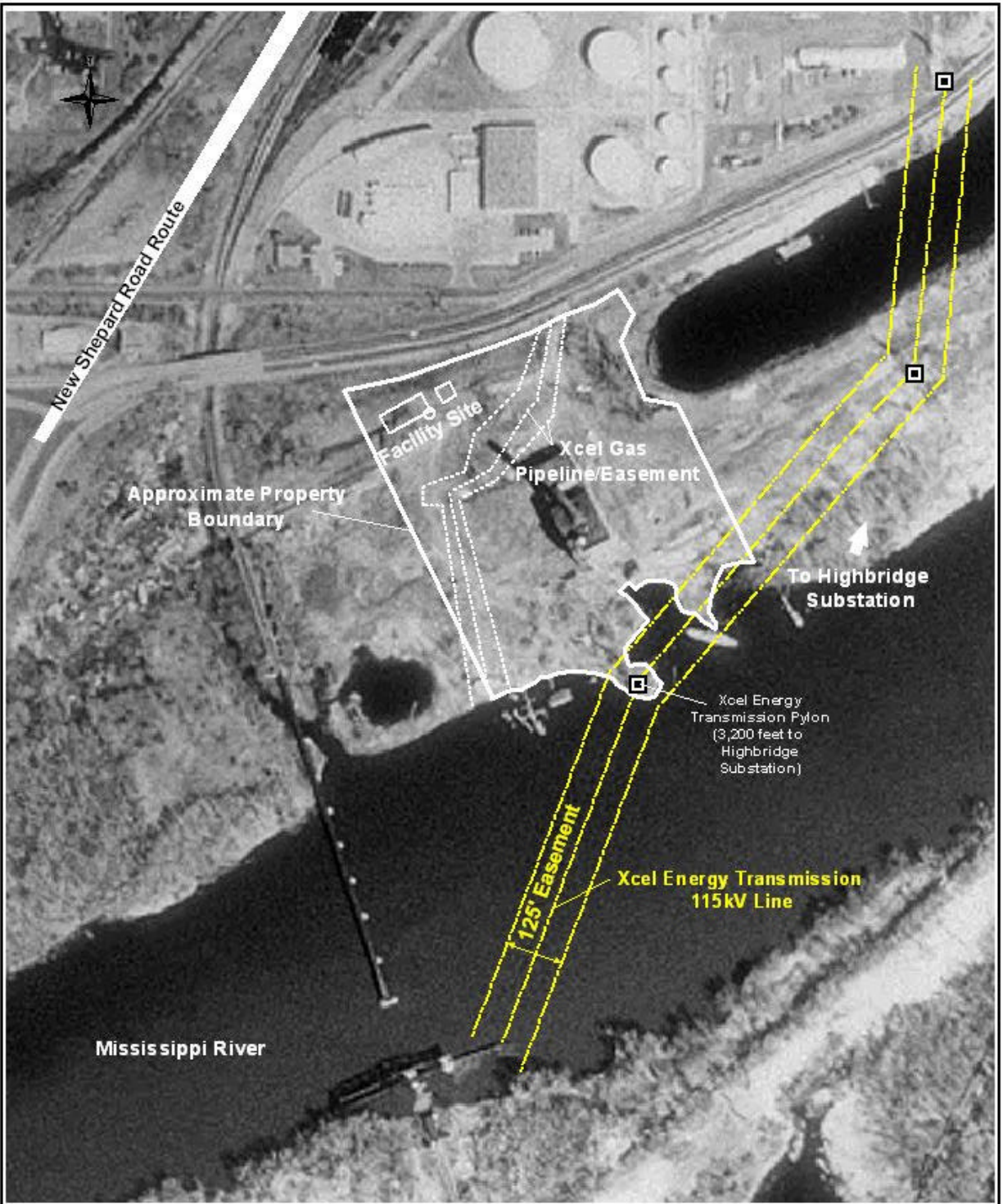
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ISLAND STATION

Figure 3
Aerial Photograph
 April 17, 1991

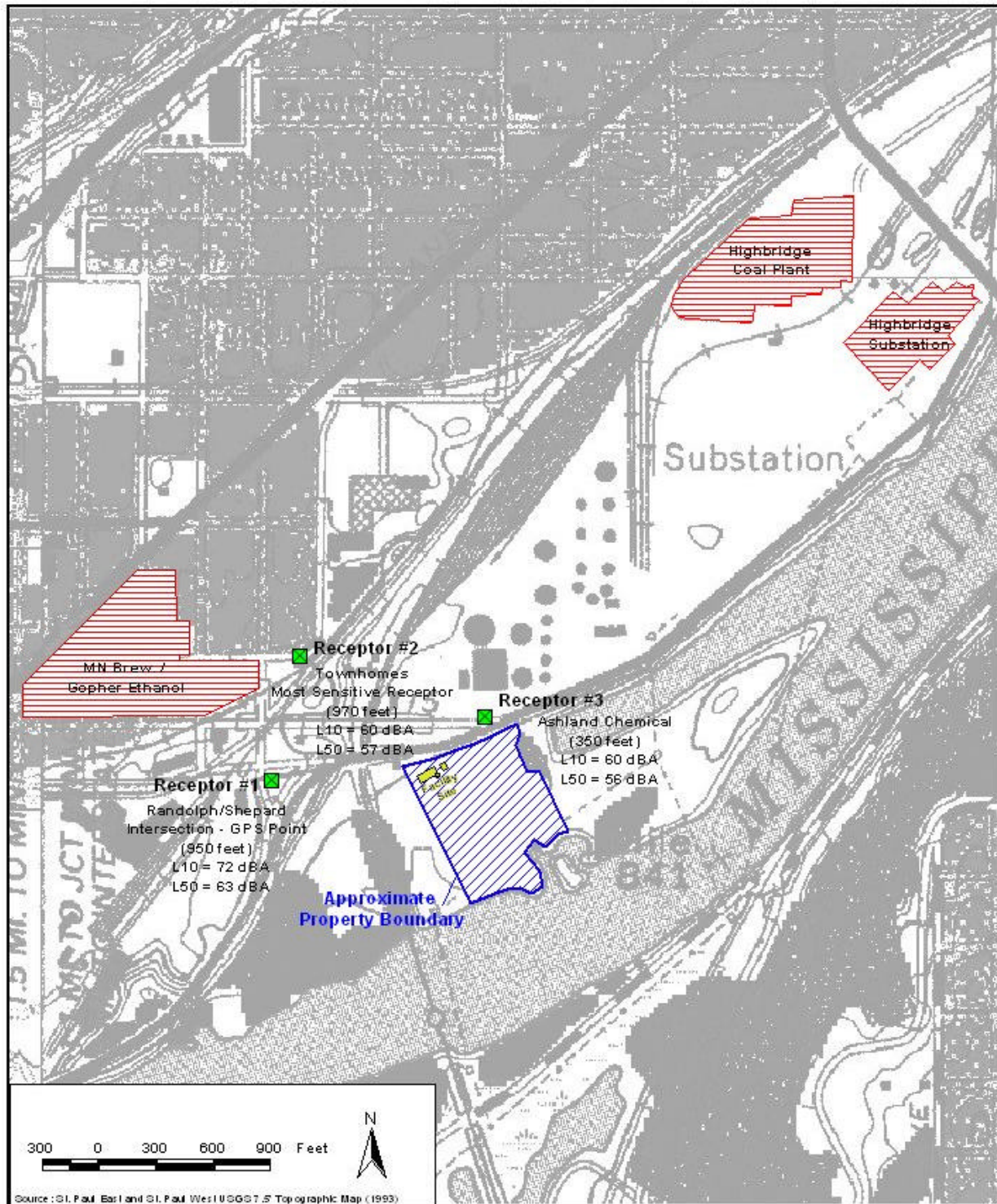
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ISLAND STATION

Figure 4
Noise Monitoring Locations
Prairie Gen L.P.

DATE: 1/9/02

REVISED: 1/31/02

SCALE: 1:8,500

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Figure 5a. East Southeast View from the Nearest Residential Area



Figure 5b. Existing Island Station as viewed from across the Mississippi River. North Northwest View.

Figure 5 – Island Station Photographs



**Figure 5c. New Island Station Site.
Looking North Northwest From Southwest Corner of
Existing Island Station**



**Figure 5d. Existing Island Station River Frontage.
North Northwest View**

Figure 5 Cont. – Island Station Photos

Minnesota River



Station
Driveway Approach

MRS Driveway,



Control House, Chillers and Turbine.
Vertical Stack Visible Far Right

**Figure 6 – Minnesota River Station Photographs – December 2001
Chaska Minnesota**

Appendix A

Phase I Environmental Analysis - Executive Summary Prepared by Geomatrix Consultants

(Complete report available at the EQB Office.)

PHASE I ENVIRONMENTAL SITE ASSESSMENT

St. Paul, Minnesota

1.0 EXECUTIVE SUMMARY

Geomatrix Consultants, Inc. (Geomatrix) has conducted a Phase I Environmental Site Assessment (ESA) of the property located at 436 Shepard Road in St. Paul, Minnesota (“the Site”) (see Figure 1 and Figure 2). This ESA was conducted in accordance with the procedures set forth in ASTM document E 1527-00, “Standard Practice For Environmental Site Assessments: Phase I Environmental Site Assessment Practice” and in general conformance with guidelines for conducting a Phase I ESA on a commercial property. Our client, Prairie Gen, L.P., is considering purchasing the Site and constructing a 50 megawatt gas fired power plant on the Site, and has requested this ESA as part of its due diligence process.

Current Site Use

The Site is approximately 10.7 acres in size and includes a 20,000 square foot building, which was originally utilized as a coal fired power plant. The former power plant building consists of five stories plus a basement. The Site is currently used for storage and maintenance of automobiles and boats and storage of landscaping supplies, wood working equipment, wood pallets, and a large quantity of general household materials.

Miscellaneous waste materials observed inside the former power plant building during the Site walk included 5-gallon pails of roofing tar, painting supplies (including paint thinner), and compressed gas cylinders. A 55-gallon drum containing waste oil is currently located just west of the former power plant building pending disposal by Nicollet Restoration. Several automobiles, boats, a bus, and a large recreational vehicle (RV) are stored outdoors at the Site.

Solid wastes stored at the Site include standard solid refuse from office operations and houseboat residents (e.g., plastic, paper products, and food waste). The solid wastes are stored in roll-off containers that are picked up on a regular basis by a local waste hauler (BFI).

The Site is not connected to City of St. Paul water or sanitary sewer services. Houseboat residents utilize a portable restroom located on-Site. In the past, Nicollet Restoration obtained drinking water from an on-Site well (see Section 3.5).

Site History

The former power plant building at 436 Shepard Road was constructed in approximately 1923 by the St. Paul Gas and Light Company. The former power plant building is built on a tightly spaced grid of several hundred wooden piles and the soils beneath the building mainly consist of fill derived from river sediments or imported to the Site from nearby construction projects. St. Paul Gas and Light was purchased by Northern States Power Company (“NSP”) sometime during the 1920’s or 1930’s. NSP is now known as Excel Energy. Power was generated in the on-Site building from approximately 1924 until sometime around 1974. Nicollet Restoration, the current property owner, purchased the property in approximately 1984. Nicollet Restoration leased portions of the former power plant building for commercial and residential purposes during the late 1980’s until the City of St. Paul designated the building as “unfit for human habitation” in 1992. Commercial uses of the Site during the late 1980’s reportedly included a carpet distribution operation. Nicollet Restoration raised the grade several feet around the former power plant building to bring portions of the Site above the 100-year floodplain. The former power plant building is currently used for unheated storage space. Nicollet Restoration currently leases portions of the Mississippi River bank to several tenants that dock houseboats.

Recognized Environmental Conditions

Our assessment identified Recognized Environmental Conditions in association with the Site, as defined in ASTM E 1527-00. The Recognized Environmental Conditions are:

- 1) the potential for inorganic and organic impacts to fill soils brought to the Site from undocumented sources and potential on-Site disposal of fly ash. The fill soils may also have covered up potential Site impacts from power plant operations.
- 2) a water supply well is located in the basement of the former power plant building and is currently submerged with approximately 3 feet of water. If unused, State of Minnesota Rules require the proper abandonment of this well. The State of Minnesota also will likely require collection of environmental samples for laboratory analysis prior to proper abandonment.

Other areas of the Site with potential impacts are listed as follows (see Figure 3 for area locations):

- The former electrical substation area; and
- The vehicle maintenance area.

There are no current open agency files related to environmental issues at the Site and no specific identified releases that would allow Prairie Gen to obtain a No Association or No Further Action determination from the Minnesota Pollution Control Agency (MPCA). However, we recommend that Prairie Gen review the information in the MPCA files regarding listed sites located within ¼ mile of the Site and obtain No Association for any known or suspected impacts to the Site associated with a chemical release on one or more of these properties.

Related Environmental, Geotechnical, and Safety Issues

Frequent Flooding

Much of the Site is prone to flooding by the adjacent Mississippi River. On-Site 100-year flood zone areas are depicted on Figure 3. The U.S. Army Corps of Engineers has defined the 100-year flood elevation at the Site as approximately 709.5 feet above mean sea level, as measured using the 1929 datum (feet msl). The highest recorded flood at the Site occurred in 1965. The Mississippi River rose to an elevation of approximately 712 feet msl during the 1965 flood event.

Condition of the Former Power Plant Building:

There is an extremely large quantity of materials currently stored at the Site. Some of the material stored inside the former power plant building may be hazardous waste. Characterization and disposal of these materials, which include automobiles, boats, a 55-gallon drum of waste oil, many empty 55-gallon drums, small quantities of roofing tar and several household chemicals, and compressed gas cylinders, would be costly. If the type of solid waste identified in above-ground storage areas are present in the basement of the former power plant, which was inaccessible to Geomatrix personnel due to the presence of standing water, there would be a potential for chemical releases to the Mississippi River via the floor drains following flood events.

In addition, the former power plant building may contain significant amounts of asbestos containing material (ACM) and mold, which would likely be costly to remove either for purposes of renovation or demolition (ACM only). A detailed asbestos survey and collection of samples for laboratory analysis

should be performed prior to demolition or rehabilitation of the former power plant building to assess the presence or absence of ACM.

The former power plant building contains above-ground walkways and other structures with an unknown level of structural stability. Several areas of the building may be unsafe for traveling on foot. Safety concerns related to these conditions will likely add costs for removal of building contents and assessment and removal of ACM from the building.

Demolition of the former power plant building would be costly due to its sturdy construction, the 200-foot tall exhaust stack, and extensive network of piles located beneath the basement floor.

Condition of on-Site Fill Soils:

Fill soils were reportedly not compacted after placement. Wood debris and concrete was observed to be mixed with shallow soil in several areas of the Site. A large quantity of concrete is reportedly buried northeast of the former power plant building. If loose soils or significant amount of wood debris/concrete is present in future on-Site development areas, Prairie Gen will likely experience increased costs associated with performing geotechnical correction below future buildings and parking areas at the Site.

Appendix B

Response Letter MN/DNR Natural Heritage Program



Minnesota Department of Natural Resources

Natural Heritage and Nongame Research Program, Box 25

500 Lafayette Road

St.. Paul, Minnesota 55155-40__

Phone: (651) 296-7863 Fax: (651) 296-1811 E-mail: sarah.hoffmann@dnr.state.mn.us

December 5, 2001

John Jaffray

Prairie Gen L.P.

80 So 8th Street, Suite 4040 Minneapolis, MN 55402

Re: Request for Natural Heritage information for vicinity of proposed Prairie Gen L.P. Natural Gas-Fired Power Plant, T28N R23W Sec. 12, Ramsey County NHNRP Contact #: ERDB 20020470

Dear Mr. Jaffray,

Please note that we detected what *we believe to be* an error in the Township, Range, and Section information as it was submitted to us on the Information Request Form. Because the location description that was submitted on the Information Request Form did not match the project area outlined on the map that was submitted with the form, the enclosed search results are for the area indicated on the map (as listed in the subject line of this letter). If the location description of your project area, as listed above, is in error, please contact me.

The Minnesota Natural Heritage database has been reviewed to determine if any rare plant or animal species or other significant natural features are known to occur within an approximate one-mile radius of the area indicated on the map enclosed with your information request. Based on this review, there are 7 known occurrences of rare species or natural communities in the area searched (for details, see enclosed database printout and explanation of selected fields). However, based on the nature and location of the proposed project I do not believe it will affect any known occurrences of rare features.

The Natural Heritage database is maintained by the Natural Heritage and Nongame Research Program, a unit within the Division of Ecological Services, Department of Natural Resources. It is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, natural communities, and other natural features. Its purpose is to foster better understanding and protection of these features.

Because our information is not based on a comprehensive inventory, there may be rare or otherwise significant natural features in the state that are not represented in the database. A county-by- county survey of rare natural features is now underway, and has been completed for Ramsey County. Our information about natural communities is, therefore, quite thorough for that county. However, because survey work for rare plants and animals is less

exhaustive, and because there has not been an on-site survey of all areas of the county, ecologically significant features for which we have no records may exist on the project area.

The enclosed results of the database search are provided in two formats: index and full record. To control the release of locational information which might result in the damage or destruction of a rare element, both printout formats are copyrighted.

The index provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an Environmental Assessment Worksheet, municipal natural resource plan, or report compiled by your company for the project listed above. If you wish to reproduce the index for any other purpose, please contact me to request written permission. Copyright notice for the index should include the following disclaimer: "Copyright (year) State of Minnesota, Department of Natural Resources. This index may be reprinted, unaltered, in Environmental Assessment Worksheets, municipal natural resource plans, and internal reports. For any other use, written permission is required."

The full-record printout includes more detailed locational information, and is for your personal use only. If you wish to reprint the full-record printouts for any purpose, please contact me to request written permission.

Please be aware that review by the Natural Heritage and Nongame Research Program focuses only on *rare natural features*. It does not constitute review or approval by the Department of Natural Resources as a whole. If you require further information on the environmental review process for other wildlife-related issues, you may contact your Regional Environmental Assessment Ecologist, Wayne Barstad, at (651)772-7940.

An invoice for the work completed is enclosed. You are being billed for map and database search and staff scientist review. Please forward this invoice to your Accounts Payable Department. Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources.

Sincerely,

Sarah D. Hoffmann
Endangered Species Environmental Review Coordinator

encl:

search results Database
Rare Feature Database Print-Outs: An Explanation of Fields.

Appendix C

**St. Paul Mississippi River Corridor Plan - Summary
(Complete Plan available at the EQB Office.)**

MISSISSIPPI RIVER CORRIDOR PLAN

THE SAINT PAUL COMPREHENSIVE PLAN



Recommended by the Saint Paul Planning Commission December 15, 2000

Adopted by the Saint Paul City Council subject to review by the Metropolitan Council,
Department of Natural Resources, and National Park Service March 14, 2001



CITY OF SAINT PAUL
DEPARTMENT OF PLANNING AND
ECONOMIC DEVELOPMENT

1.0 Summary

The Saint Paul Mississippi River Corridor Plan describes the Mississippi River in Saint Paul as a series of interrelated systems: natural, economic, social, and built. Just as the River Corridor has been shaped by history, decisions about development and change will influence each of these systems for future generations. Thus, this plan focuses on protecting the resources that support our community, and on the management of human activity and the physical environment.

Saint Paul is rediscovering and redefining its relationship with the Mississippi River. Increased environmental stewardship and establishing connections to the river are central to this rediscovery. The Mississippi River Corridor Plan reinforces the body of river-related planning already completed in recent years. Those plans which are most influential come from within and outside the City: the 1999 Land Use Plan, the *Saint Paul on the Mississippi Development Framework*, the Mississippi National River and Recreation Area (MNRRA) Comprehensive Management Plan, and the State Critical Area program.

The Mississippi River Corridor Plan is a chapter of the Saint Paul Comprehensive Plan. The Water Management Plan will be written after the River Corridor Plan is completed. The current Mississippi River Corridor Plan was adopted in 1981, and amended in 1987. After public hearings and consideration of public comments, the Saint Paul Planning Commission will forward the plan to the City Council. The City Council will review the plan and submit it to the Metropolitan Council, the Department of Natural Resources, and the National Park Service for joint review. After receiving comments from these agencies, the City Council will adopt the final plan.

There are numerous entities with jurisdiction over the Mississippi River, ranging from local to federal units of government. The City intends that its plans and ordinances for the river corridor be consistent with those of these governmental partners.



Figure A

The River Corridor Plan will guide use and development along the Mississippi River, while protecting the river's ecological function.



Strategy 1: Protect the River as a Unique Urban Ecosystem

- ◆ Undeveloped bluffs should be protected, stabilized, and restored through acquisition, use of native species, building setbacks, and by prohibiting development on the bluff face.
- ◆ The River Corridor contains sensitive natural resources. The floodplain and shorelines, wetlands, and natural habitat found throughout the River Corridor should be protected and sustained.
- ◆ The City supports the green corridors project of the Minnesota DNR. The goal is to establish regional greenways around high quality native habitat remnants, thus providing continuous habitat corridors for native plant and wildlife species. In Saint Paul, the river valley and the Trout Brook reach are parts of the DNR plan.
- ◆ Working with its watershed partners, the City will continue to identify means for improved stormwater management. Public education will continue to be an important way to help protect water quality.

Strategy 2: Sustain the Economic Resources of the Working River

- ◆ The City supports continuation of the working river and commercial navigation in Saint Paul. The economic importance of commercial navigation to Saint Paul, Minnesota, and the Upper Midwest is significant. The environmental benefits of barging over other hauling modes (air quality, traffic congestion, etc.) have been well documented.
- ◆ The City supports the Port Authority's policy of replacing non-river-related businesses with river-related businesses at Southport and Red Rock Industrial Districts, as leases expire.
- ◆ Along the riverfront and its floodplain, new development should have a relationship to the river, a need for a river location, or the capability to enhance the river environment. Industrial and commercial uses, as well as housing may all fit these categories.

Strategy 3: Enhance the City's Quality of Life by Reconnecting to the River

- ◆ Parks, open space, and trails are an important way of allowing people to come the river. The City is working on a number of initiatives, including

the realignment of Shepard Road, to increase park and open space along the river. Over time the city's riverfront open space system will become more continuous and river-related. The City will also complete a continuous Mississippi River Trail along the entire length of both sides of the river.

- ◆ The views afforded by magnificent bluffs in Saint Paul's river corridor are part of what makes the city a special place. There are opportunities in the Shepard Road/West Seventh Street corridor, Battle Creek and Highwood neighborhoods to create additional view points to the river. To enhance river corridor views, all billboards should be removed from the river corridor and not replaced.
- ◆ New neighborhoods are part of creating connections to the river. In strategic River Corridor locations, following adopted design principles, new urban villages should be established.
- ◆ Cultural resources in the river corridor include early settlements, historic structures, and architecturally unique bridges. These resources should be preserved and restored, as they are integral to the character and history that defines Saint Paul.

Strategy 4: Use Urban Design to Enhance the River Corridor's Built Environment

- ◆ New development should establish "traditional" street and block patterns to enable people to experience the river through visual and physical connections. These traditional street patterns will restore connections between neighborhoods further upland and the river.
- ◆ Primary view corridors should remain open and unobstructed. Accordingly, the scale of new buildings in the river corridor should relate to topography, and should preserve critical public views.

